IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

FLATWORLD INTERACTIVES LLC, Plaintiff, v. SAMSUNG ELECTRONICS CO., LTD., *et al.*, Defendants.	C.A. No. 12-804-LPS **JURY TRIAL DEMANDED**
FLATWORLD INTERACTIVES LLC, Plaintiff, v. LG ELECTRONICS, INC., *et al.*, Defendants.	C.A. No. 12-964-LPS **JURY TRIAL DEMANDED**

DEFENDANTS' JOINT OPENING CLAIM CONSTRUCTION BRIEF

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TABLE OF CONTENTS

TABLE OF AUTHORITIES

Federal Cases

Federal Statutes

Other Authorities

I. INTRODUCTION

The patent-in-suit, U.S. Patent No. RE43,318 (the "'318 patent"), discloses a "child-friendly digital system" with a "touch-sensitive screen" for playing children's games. The claims generally relate to manipulating images on the screen with some sort of input like a mouse or a finger. The principal feature of the patent-in-suit is the ability to remove an image from the screen by "dragging" the image faster than a threshold velocity. When the threshold velocity is exceeded, the image being dragged is automatically thrown and removed from the screen.

There are two principal areas of dispute between the parties underlying the claim terms requiring construction. The first dispute concerns the point in time the image is thrown from the screen. The issue is whether the claims require the immediate removal of an image being dragged when it reaches a threshold velocity while it is still being dragged (when the finger is still on the screen) – this is the Defendants' position – or provide that the throw can be delayed until after the drag stops (after the finger is lifted) – the Plaintiff's position. As discussed below, the intrinsic evidence, including the claim language itself, the specification and the prosecution history, supports Defendants' construction. Indeed, during prosecution, FlatWorld unequivocally disavowed throwing or removing an image from the screen after a drag has ended and a user's finger is lifted. FlatWorld's constructions, which expand the scope of the asserted claims to cover virtually every Android smartphone that can only remove images *after* a drag is completed (and a user's finger is lifted), should be rejected.

The second major dispute concerns the claim limitations requiring the "removal" of an image from the screen without leaving a "representative thereof" on the display. The specification of the patent never mentions the concept of not leaving a "representative" of an

image on the screen and this negative limitation was only added to avoid invalidating prior art. For this reason, Samsung has moved for leave to file a motion for summary judgment of invalidity which LG has joined.[1] FlatWorld tries to address this lack of any support for the added negative limitation by defining "removal" to include and subsume not leaving a "representative" on the screen. This is an attempt to cure the fatal defect in the patent's disclosure through claim construction, which as discussed below, leads to redundant limitations, is contrary to statements made during the prosecution of the patent, and should be rejected.

The absence of any discussion in the specification of not leaving a representative on the display also results in a lack of any definition of what the term "representative" means here. The term can mean multiple things and there is no way for anyone to know what constitutes a "representative" of an image. Since one reading the claims would not know what would constitute a "representative" of the removed image, the independent claims are indefinite, all claims before the Court are invalid, and this case is over.

As to the remaining terms in dispute, intrinsic evidence likewise supports Defendants' constructions, not FlatWorld's.

II. ARGUMENT[2]

The patent-in-suit, which is a reissue of U.S. Patent No. 6,920,619 (the "'619 patent"), took nearly seven years to issue and required two appeals and six different amendments to the

[1] *See* Samsung's Motion for Leave to File a Motion for Summary Judgment of Invalidity under 35 U.S.C. § 112(a), C.A. No. 12-804-LPS, D.I. 37; LG's Notice of Joinder in Samsung's Motion for Leave to File a Motion for Summary Judgment of Invalidity under 35 U.S.C. § 112(a), C.A. No. 12-964-LPS, D.I. 36. Samsung's motion is currently pending before this Court.

[2] Because this Court is well aware of the developed jurisprudence governing claim construction, Defendants do not repeat it herein but refer to this Court's opinion in *Galderma Labs. Inc. v. Amneal Pharms., LLC*, C.A. No. 11-1106-LPS, 2013 WL 3942965, at *1-2 (D. Del. July 30, 2013).

claims.[3] Numerous amendments to claims that eventually became independent claims 1, 7, and 15 of the patent-in-suit were made to overcome a very close prior art reference that also teaches removal of an image, U.S. Patent No. 5,463,725 to Henckel et al.[4] (hereinafter "Henckel"). The words of the claims of the patent-in-suit were carefully revised and, together with the arguments made during prosecution, should inform this Court's consideration of the proposed constructions.

A. Temporal Terms Relating to "When" an Image is Removed from a Screen

The following phrases are all directed to the key issue of when the image is thrown. Each should be construed consistently with the construction that the image is "thrown" while it is being dragged, not after the dragging ends. The difference in the parties' constructions of the terms discussed in this section revolves around this issue. These terms are found within the following larger claim limitations:

Claim 1	Claim 7	Claim 15
"when the image is being dragged in response to location inputs and the system detects that the velocity with which the image is being dragged exceeds a threshold velocity, the system responds by removing the image from the display"	"when the point being touched is being continually moved and the system detects that the velocity at which the point is moving exceeds a predetermined threshold velocity, the image being continually moved is removed from the screen"	"the computer responding to a continuing touch that moves the image across the touch screen such that when the computer detects that the velocity of the touch exceeds a predetermined threshold, the computer responds by removing the image from the screen"

The claims themselves provide substantial guidance as to the meaning of the particular disputed claim terms,[5] and the context in which a term is used in an asserted claim is highly instructive.[6] Here, viewing the individual terms together provides this context and shows that the throw is to

[3] *See, e.g.*, Exhibit D to Claim Construction Chart, C.A. No. 12-804-LPS, D.I. 51-7 ("Defendants' Chart"), Ex. D-3 at 2-4 (summarizing prosecution history).
[4] Defendants' Chart, Ex. D-6 ("Henckel").
[5] *Phillips v. AWH Corp.*, 415 F.3d 1303, 1314 (Fed. Cir. 2005).
[6] *Id.*

occur while the image is being dragged, not after the dragging ends. Each limitation describes the throw as occurring "when" the image "is being dragged" (twice in Claim 1), "is being continually moved" and "is moving" (in Claim 7) and during "a continuing touch" (Claim 15). From the claim language itself, the throw must occur on exceeding a threshold velocity "when" the image is being dragged, is being continually moved, and in response to a continuing touch. The Court need not look any further than the claims' words.

Not surprisingly, the specification and prosecution history confirm that, according to the claims, a drag becomes a throw and the image is removed "when" a threshold velocity is exceeded, and is not delayed until another condition arises. For example, the specification states:

> The throwing action is executed *when* the speed at which an object is dragged across display 111 exceeds a threshold speed which corresponds more or less to the speed of the natural throwing motion. *When the threshold is exceeded*, the 'thrown' object will continue to move in the same direction *even when the finger is lifted off the screen*. One use of throwing is to remove an object from the display.[7]

The applicant plainly knew how to specify the requirement for lifting a finger, for the specification also teaches "dropping" as opposed to throwing by expressly requiring the lifting of the finger: "[s]elected objects can be dragged by moving the finger across the screen, and 'dropped' by lifting the finger."[8]

There is nothing in the specification to suggest that "dropped" items can be thrown at a later time. Therefore, "when" an image is dragged at a speed exceeding a threshold velocity, the image will continue to move off the display in the same direction it was being dragged. This will occur "even when the finger is lifted off the screen," meaning the throw begins while the finger is down and the image is being dragged, and even after the user stops dragging the image (i.e.,

[7] '318 patent at col 6, ll. 56-62 (emphasis added).
[8] '318 patent at col. 6, ll. 40-42.

"when the finger is lifted off the screen") the throw will continue. This is in fact how FlatWorld's only existing commercial version of the patented product works.[9]

Moreover, to get the patent, the applicant unequivocally disavowed throwing images after the finger is lifted. To overcome the Henckel prior art, the applicant amended claims 19, 29, and 55 (now claims 1, 7, and 15).[10] To distinguish Henckel, the applicant argued:

> … [T]he amended description of the limitation is intended to make it clear that *when the image is being dragged faster than the threshold velocity, the semantics of the drag operation changes: instead of simply moving faster, the image vanishes*. None of the operations in Henkel [*sic*] changes its semantics when the speed with which it is performed passes a threshold velocity. In particular, Henkel's [*sic*] swipe operation, which Examiner cites as an example of an operation which changes when the speed with which it is performed passes a threshold velocity, does not have this property. Instead, as is clear from the description at col. 3, lines 5-19 [of the Henckel patent], the swipe operation done at any speed works [in Henckel] as follows:
>
> 1. When the user touches the screen on the image of the page and begins moving his finger in the direction that the page turns, the page begins turning.
>
> 2. When the user keeps his finger on the image and stops moving it, the page turning operation pauses.
>
> 3. When the user begins moving his finger in the direction that the page turns *and then takes his finger off the image of the page*, the page turning operation runs to completion.
>
> Because the operation works as described at (3) above when the turning operation is begun *and the finger is removed from the image of the page*, a number of fast, short swipes cause a number of pages to be turned quickly. Making fast, short swipes does not, however, change the page turning operation; it merely speeds it up.[11]

[9] Handy Decl., Ex. A ("Milekic Samsung Dep. Tr.") at 183:10-19; FlatWorld Am. Compl. at ¶ 19, C.A. No. 12-804-LPS, D.I. 11("FlatWorld has installed additional touchscreens according to the inventions claimed in the original '619 Patent and reissue '318 Patent in July, 2009 for the Philadelphia Zoo Snow Leopard Interactive Exhibit.").

[10] Defendants' Chart, Ex. D-2 at 2-4 (showing amendments made to claims), 7.

[11] *Id*. at 5-6 (emphasis added).

The applicant expressly distinguished Henckel from his invention by pointing to the fact that the image is only removed in Henckel when "the finger is removed from the image."[12]

Because the independent claims were amended to (i) distinguish Henckel by explaining how the amendments "make it clear that when the image is being dragged faster than the threshold velocity, the semantics of the drag operation changes: instead of simply moving faster, the image vanishes"; and (ii) expressly distinguish Henckel as only removing pages after "the finger is removed from the image of the page," FlatWorld cannot recapture through claim construction the means of removing images from a screen when the finger is lifted as it attempts to do in the following claim terms.[13]

1. "when the image is being dragged in response to location inputs" and similar terms (Term 4 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"when the image is being dragged in response to the location inputs" (claim 1) "when the point being touched is being continually moved" (claim 7) "the computer responding to a continuing touch that moves the image across	At or during the time the image is being moved in response to the location inputs (claim 1) At or during the time the point being touched is being moved without interruption (claim 7) The computer responding to a touch that continues without interruption that moves the image across	(a) *See*, "when," (In view of the fact that; in the event that; if) "image," (A displayed or drawn representation on the display that can be manipulated as a unit in response to touch or location inputs) and "dragged" (Caused to move in response to the touched point or to track location inputs). The system or computer removes the image from the display or screen if at least this and the other recited conditions arise.

[12] *Id*.

[13] *See Sentry Prot. Prods., Inc. v. Eagle Mfg. Co.*, 400 F.3d 910, 915 (Fed. Cir. 2005) (affirming claim construction based on prosecution history disclaimer because "[b]y amending their claims to include the limitation 'single unitary part' and arguing that this amendment 'distinguishes the present invention from the multi-component impact protection assembly disclosed by Pease[,]' the patentees gave up coverage of multipart impact protection components."); *Gillespie v. Dywidag Sys. Int'l, USA*, 501 F.3d 1285, 1291 (Fed. Cir. 2007) ("The patentee is held to what he declares during the prosecution of his patent.").

the touch screen" (claim 15)	the touch screen (claim 15)	(b) *See*, "when" and "continually moved" (A movement that causes an image to be dragged across the screen). *See* above. (c) *See*, "continuing touch," (A touch that causes an image to be dragged across the screen) and "image." *See,* above. **response/responding:** To do something in reaction to an input.

Defendants construe these terms to require that the image is removed "when" a threshold velocity is exceeded *during* a drag (before the finger is lifted). FlatWorld attempts to avoid directly addressing the temporal issue altogether and never specifies when the throw occurs. Instead, FlatWorld leaves this open by suggesting that the image is not removed until "other recited conditions arise," whenever that might be. Nothing in the claim or other intrinsic evidence suggests such other conditions. And contrary to FlatWorld's view, "when" does not mean "if."

FlatWorld's construction also ignores claim amendments adding both the word "when" and the temporal limitations of "is being dragged" and "continuing touch" as necessary to overcome Henckel. For example, comparing claim 1 before and after amendment with FlatWorld's construction demonstrates this change:

Claim 1 as issued	Claim 1 before amendment	FlatWorld's Proposed Construction
… when the image is being dragged in response to the location inputs and the velocity with which the image is being dragged exceeds a threshold	… an image is removed from the set in response to location inputs that drag the image at a velocity which is above a threshold velocity. (Defendants' Chart, Ex.	The system or computer removes the image from the display or screen if at least this and the other recited conditions arise.

velocity, the system responds by removing the image from the display without leaving any representative therefor in the display. ('318 patent at claim 1.)	D-2 at 2.)	

The open-ended claim language that "an image is removed … *in response to*" dragging the image above a threshold velocity was flatly rejected by the PTO, and the subsequent amendments and argument unequivocally disavow such unbounded temporal scope for when the image can be removed. Put simply, FlatWorld cannot resurrect the broad scope of the original, and disavowed, '318 patent claims through claim construction.

Defendants' constructions properly limit "when" to "at or during," which in the context of this and other words in the claim, properly define the scope of all '318 patent claims to throw images *during* a drag or a "continuing touch." Therefore, Defendants' construction should be adopted and FlatWorld's construction must be rejected for being inconsistent with the intrinsic evidence and recapturing subject matter unequivocally disavowed during prosecution.

2. "the system responds by removing the image from the display" and similar terms (Term 5 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"the system responds by removing the image from the display" (claim 1)	Instead of simply moving faster, the image vanishes from the display.	(a) *See*, "response"/ "responding," "removing," (Eliminating the image from the screen without leaving a representative of the removed image on the screen) and "image."
"the image being continually moved is removed from the screen" (claim 7)	See above.	The system or computer removes the image from the display or screen if the recited conditions arise.
"the computer responds by removing the image from the screen" (claim	See above.	(b) *See*, "image," "continually moved," and "removed."

15)		*See*, above. (c) *See*, "respond," "removing," and "image." *See,* above

Like the other similarly grouped terms in this Section, FlatWorld tries to avoid the temporal concept of when the removal occurs. In the context of the full claim and the intrinsic evidence, however, the removal does not occur at some unknown, potentially later time. It occurs when the threshold velocity is exceeded while the image is being dragged or continually touched. For claims 1 and 15, Defendants construe how the system/computer "responds by removing the image" by clarifying that such "response" occurs "at or during the time the image is being moved." Similarly, claim 7 explicitly requires removing "the image being continually moved," which by the plain language of the claim and further supported by the intrinsic and extrinsic evidence cited above, means that the image is likewise removed "at or during the time the image is being moved."

FlatWorld again avoids the temporal requirement set forth in the claims and intrinsic evidence, leaving the claim unbounded temporally with respect to when an image that was dragged in excess of a threshold velocity is removed from the screen. As is clear from the prosecution history, FlatWorld purposefully reworded the claim so that the "throw" occurs during dragging. This is highlighted by Defendants' construction, which is simply the *verbatim* definition of the term that the patentee provided to the PTO during prosecution of the '619 patent in order to distinguish the alleged invention over Henckel. For example, the Applicant argued the following in the prosecution history:

- "Beginning with the first limitation, the amended description of the limitation is intended to make it clear that when the image is being dragged faster than the threshold velocity,

the semantics of the drag operation changes: *instead of simply moving faster, the image vanishes.*"[14]

- "When one turns a page in a printed book or magazine, the page does not simply *vanish* from the book or magazine; as would be expected from a display that emulates the behavior of a printed book or magazine, a turned page also does not *vanish* from Henckel's display."[15]

As made clear in the prosecution history, the patentee construed "removing the image from the display" and the related terms to mean that the image simply "vanishes" while the finger is still down in order to overcome the page-turning swipe gesture disclosed in Henckel. Such a disclaimer prohibits FlatWorld from now construing the claim terms in a different way against the Defendants.[16]

3. "the velocity with which the image is being dragged" and similar terms (Term 3 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"the velocity with which the image is being dragged" (claim 1) "the velocity at which the point is moving" (claim 7) "the velocity of the touch" (claim 15)	the speed of the image as it is being moved across the screen	*See*, "velocity," (The speed of motion in a given direction) "image," and "dragged."

Again, FlatWorld prefers to maintain temporal ambiguity by refusing to construe these terms in their entirety and in proper context. Defendants properly construe these related terms to mean the same thing – that the "velocity" of the image, point, or touch refers to the speed of the image as it is being moved across the screen. Defendants' construction is supported by the language in the claims themselves: (i) claim 1 refers to the velocity "the image is being

[14] Defendants' Chart, Ex. D-2 at 6 (emphasis added).
[15] Defendants' Chart, Ex. D-3 at 7.
[16] *See, e.g.*, *Southwall Techs., Inc. v. Cardinal IG Co.*, 54 F.3d 1570, 1576 (Fed. Cir. 1995) ("Claims may not be construed one way in order to obtain their allowance and in a different way against accused infringers.").

dragged"; (ii) the antecedent basis for "the point" in claim 7 is "a point within the image [that] selects the image for moving"; and (iii) the antecedent basis for "the touch" in claim 15 is "a continuing touch that moves the image across the touch screen."[17] And, the specification equates "dragging" with "moving" by explaining how "[s]elected objects can be dragged by moving the finger across the screen."[18] Therefore, the Court should adopt Defendants' construction, and reject FlatWorld's attempt to maintain ambiguity by refusing to construe these terms at all.

4. "threshold velocity" (Term 1 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"threshold velocity" (claims 1, 7, 15)	A velocity that when exceeded changes the meaning of the gesture from a drag to a throw	**velocity**: The speed of motion in a given direction. **threshold** velocity: A velocity that if exceeded is a condition to change the meaning of a gesture from a drag to a throw

The same attempt to avoid any temporal context for the meaning of the claims is again reflected in FlatWorld's construction. According to FlatWorld, exceeding a threshold velocity is merely one "condition" necessary to change the meaning of a drag gesture to a throw, and again nothing is said about *when* the necessary, and unidentified, conditions are to be determined for the throw to occur. In other words, under FlatWorld's construction, something must happen, possibly the finger being lifted off the screen, before the image is thrown or removed from the screen (or, presumably, any other possible conditions that an accused product may require before removing an image).

The intrinsic evidence detailed above, however, makes it clear that exceeding a threshold velocity is not merely one condition to removing the image – it is the *only* condition such that,

[17] '318 patent at col. 15, ll. 2-13 (claim 1); col. 15, ll. 36-48 (claim 7); and col. 16, ll. 14-23 (claim 15).
[18] '318 patent at col. 6, ll. 40-41.

"when" a threshold velocity is exceeded, a drag becomes a throw and the image is removed. Therefore, Defendants' construction should be adopted, and FlatWorld's attempt to construe this phrase to be just one of several possible "conditions" before an image is thrown or removed from the screen should be rejected as improper in view of the intrinsic evidence cited above.

5. "when the image that is being removed is dragged in a first [second] direction" and related term (Term 9 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"when the image that is being removed is dragged in a first [second] direction" (claims 3, 9) "when the continuing touch moves in a first [second] direction" (claim 16)	at or during the time the image is being moved in a first [second] direction	*See*, "when," "image," "continuing touch," "removed," and "dragged." The system or apparatus replaces the removed image in the event that the recited conditions arise.

These terms mirror Term 4 – "when the image is being dragged in response to the location inputs" – and are also relevant to the dispute as to "when" an image is thrown – during or after a drag. Defendants' construction is consistent with the reasoning for Term 4 by clarifying that "when" in this context means "at or during the time," not at some unspecified and unbounded time after "the recited conditions arise," as FlatWorld proposes.

6. "dragged", "continually moved [touched]", and "when" (Terms 12-15 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"dragged" (claims 1, 3, 18)	Plain and ordinary meaning	Caused to move in response to the touched point or to track location inputs.
"continually moved" (claim 7)	moved without interruption	A movement that causes an image to be dragged across the screen

"continuing touch" (claim 15)	touching without interruption	A touch that causes an image to be dragged across the screen
"when" (claims 1, 3, 7, 9, 15, 16)	at or during	In view of the fact that; in the even that; if

The term "dragged" is readily understandable, and there is nothing in the specification or prosecution history to demonstrate that its meaning differs from its plain and ordinary meaning.

"Continually moved" and "continually touched" are also readily understandable, but in view of FlatWorld's proposed construction – "A movement [touch] that causes an image to be dragged across the screen" – Defendants propose the more reasonable "moved [touching] without interruption." It is unclear what FlatWorld is trying to accomplish by forcibly dissecting the movement or touch from the drag of the image with its proposed "causes" language, but there is no support for this awkward construction in the intrinsic evidence and therefore it should be rejected.[19]

B. Removed….Without a Representative Thereof

1. "removed" / "removing" (Term 2 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"removed" / "removing" (claims 1, 7, 15)	Plain and ordinary meaning.	Eliminating the image from the screen without leaving a representative of the removed image on the screen.

The plain and ordinary meaning of "removing" an image from the display is readily understandable, and there is nothing in the specification or prosecution history that changes it. Nevertheless, FlatWorld expands the plain and ordinary meaning of "removing" to include both "eliminating" the image from the screen and doing so "without leaving a representative thereof."

[19] With respect to "when," Defendants refer the Court to its discussion of this term in its proper context with surrounding claim language above for Term 4. *See supra* at Section A.1.

The reason for this is obvious – FlatWorld is trying to use the claim construction process to solve the patent's failure to satisfy § 112(a)'s written description requirement with respect to the separate negative limitation requiring that the image be removed "without leaving a representative thereof."[20] By combining the two limitations into one, FlatWorld hopes that it can satisfy § 112(a) through the disclosure in the specification of merely removing images – even though the negative limitation of not leaving a representative on the display is never even mentioned.

FlatWorld's construction must be rejected because it would render the claims internally redundant and the additional negative limitation superfluous. For example, substituting FlatWorld's construction of "removed" into claim 7 results in the following: "the image being continually moved is [eliminate[ed] … from the screen without leaving a representative of the removed image on the screen] … without leaving any representative thereof on the screen." FlatWorld's construction, therefore, violates the basic canon of claim construction that "claim language should not be treated as meaningless."[21]

In addition, during prosecution of the patent, the inventor distinguished otherwise invalidating prior art by arguing that the cited prior art reference disclosed removal of an image while leaving a representative on the display.[22] At the time of filing the application that matured into the patent-in-suit, the independent claims broadly defined systems that simply removed an

[20] *See* Samsung's Opening Brief Supporting its Motion for Summary Judgment of Invalidity Under 35 U.S.C. § 112(a), C.A. No. 12-804-LPS, D.I. 37-2.
[21] *Bicon, Inc. v. Straumann Co.*, 441 F.3d 945, 951 (Fed. Cir. 2006) (rejecting proposed construction that would read other limitations out of the claim).
[22] *See* Defendants' Chart, Ex. D-2 at 7 ("When one turns a page in a printed book or magazine, the page does not simply vanish from the book or magazine, as would be expected from a display that emulates the behavior of a printed book or magazine, a turned page also does not vanish from Henkel's [sic] display. Instead, a given page is always present in Henkel's [sic] display, just as a given page is always present in a printed book or magazine.").

image from a display "in response" to location inputs that drag the image above a threshold velocity. For example, original claim 19 read as follows:

> 19. A system for manipulating images comprising:
> a screen upon which the images are displayed; and
> a computer coupled to the screen, the computer causing the images to be manipulated in response to location inputs from a pointing device,
> the system being characterized in that:
> removal of an image from the display is done in response to location inputs that drag the image at a velocity which is above a threshold velocity.[23]

The PTO rejected all of the claims under 35 U.S.C. § 103 as being unpatentable over Henckel and Minakuchi, U.S. Patent No. 5,844,547. Henckel, the primary prior art reference, describes an e-reader that emulates printed material.[24] In general, Henckel discloses a "swipe" gesture to turn the page of an electronic book or magazine.[25]

In a first attempt to distinguish the claimed invention from Henckel, the patentee filed an amendment adding the limitation that the image is removed from the display without leaving any "representative thereof."[26] For example, claim 19 was amended as follows:

> 19. A system for manipulating images comprising
> a screen upon which the images are displayed; and
> a computer coupled to the screen, the computer causing the images to be manipulated in response to location inputs from a pointing device, the system being characterized in that:
> ~~removal of~~ an image is removed from the display ~~is done~~, <u>leaving the display both without the image and without any representative thereof,</u> in response to location inputs that drag the image at a velocity which is above a threshold velocity.[27]

The applicant stated that the amendments were in response to the Examiner's point "that in Henckel, the image of the page did in fact disappear, even though the page remained represented

[23] Defendants' Chart, Ex. C-6 at 27.
[24] *See* Henckel at Abstract.
[25] *See id.* at col. 3, ll. 17-19 ("Thus, a series of short fast swipes can be performed by the user to page quickly through the electronic book.").
[26] *See* Defendants' Chart, Ex. D-7 at 3.
[27] *Id*.

in the display by its edge."[28] Additionally, the applicant argued that this amendment makes "it completely clear that not only the image, but also any representative thereof, disappeared from the display."[29]

As a result, FlatWorld cannot now construe "removal" of an image to include the additional negative limitation in view of its argument that Henckel is different because Henckel teaches the image is removed but a representative of the image is left on the screen. FlatWorld's construction would impermissibly recapture subject matter relinquished during prosecution.[30]

Moreover, FlatWorld's proposed construction of this term in the related *Apple* litigation[31] underscores what FlatWorld is attempting to accomplish here. Prior to the filing of Samsung's Motion, FlatWorld construed "removed" in the *Apple* case to have its plain and ordinary meaning – "moving the displayed image off of the screen or display, or otherwise eliminating it from the screen or display."[32] Now, however, after Samsung filed its motion for leave (12-804-LPS, D.I. 37) pointing out the lack of support in the specification for the negative limitation, FlatWorld has pivoted and changed its construction altogether to merge the "removal" limitation and negative limitation. For the reasons discussed above, FlatWorld's construction is improper.

2. "Representative thereof" (Term 11 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"representative thereof" (claims 1, 7)	Indefinite	A depiction of at least a portion of the removed

[28] *Id*. at 7.
[29] *Id*. (emphasis added). Notably, the prosecuting attorney did not cite any support from the specification for such an amendment.
[30] *See Sentry* and *Gillespie* cases cited *supra* at p. 6, n. 13.
[31] Prior to initiating the instant actions, FlatWorld first sued Apple, Inc. for patent infringement in the Northern District of California asserting the same patent against Apple's iphone and ipad products. *FlatWorld Interactives, LLC v. Apple, Inc.*, No. 12-CV-1956 (N.D. Cal.) ("*Apple*").
[32] *See* Handy Decl., Ex. B at 47 (listing "removed" / "removing" construction as agreed upon term in the *Apple* case).

"representative of the removed image" (claim 15)	Alternatively, if the Court determines this term is amenable to construction: a portrayal or symbol of the removed image	image.

a. The Term is Indefinite as Used Here.

There is nothing in the '318 patent defining or describing what a "representative" of an image is, and the word "representative" appears nowhere in the specification. The negative limitations in all of the '318 patent claims prohibiting the display of a "representative of a removed image" were only added during prosecution to overcome prior art. This explains why there is nothing in the specification to help construe the term – it was never a part of Dr. Milekic's invention to begin with.

As discussed above, during prosecution, the examiner rejected the claims as obvious over Henckel in combination with Minakuchi, and the applicant distinguished Henckel by amending all of the claims to include negative limitations prohibiting the display of a "representative" of a removed image.[33] Neither the term "representative," nor any such concept, is ever mentioned in the specification. As such, this term is insolubly ambiguous and therefore indefinite.

Even the inventor is unsure of what a "representative" of an image means, and for good reason – he testified the concept of whether a "representative" of a removed image could or could not be displayed was never relevant to his invention:

> "Q. … My question is: In the context of your research, did you ever consider leaving a representative of a thrown image on the screen after the image had been thrown?
>
> A. I don't think I was in that situation, but if that was a – a theoretical problem I had to solve, like which called for leaving a representation of something that was

[33] Defendants' Chart, Ex. D-7 at 3-5.

> removed on the screen, if it was important for user interaction, then I would have considered it. But I don't recall having this problem appear in – in my research."[34]

Further, the inventor acknowledged that whether an image can be a "representative" of another image depends on a user's "perception":

> "Q. So, based on your work in cognitive science and in your – in the context of your work in the – on the Veggie Face user interface, if after throwing a nose off the screen, a thumbnail image of the nose remained on the screen, would you consider that thumbnail image representative of the thrown image?
>
> A. I – I would, as long as it was obvious to the user in terms of features of this, and so, it would depend on the size of the thumbnail and how much it was degraded, because thumbnails, by definition, are the thumb size, like, so they're smaller than the original, so. And – *so, if the thumbnail could convey the information to the user, yes, I would consider it. However, if the thumbnail was not easily recognized by a potential user, then I – I would say, no, it it's not – it's not working as a representative*. So, I think it's all relative to whether it's functional or not, like, in terms of human computer interaction.
>
> Q. So, whether or not a thumbnail image was representative of the thrown image would depend on the user's perception –
>
> A. *Exactly*."[35]

Therefore, as demonstrated by the intrinsic evidence and corroborated by the inventor's testimony, the term "representative" is indefinite. *See cases cited infra at* pp. 22 n. 47, 25 n. 53.[36]

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[34] Handy Decl., Ex. C at 54:6-19 ("Milekic Apple Dep. Tr.").

[35] *Id*. at 44:11 to 45:11 (emphasis added). *See also* Milekic Samsung Dep. Tr. at 19:22 to 21:20 (correlating what constitutes a "representative" of a removed image to a user's knowledge of the removed image's contents); 44:5 to 48:5 (defining a "representative" of a removed image as something that allows a person to recognize the "essential" features of the removed image).

[36] Defendants proffer an alternative construction to refute FlatWorld's, if necessary. FlatWorld's construction strategically limits the scope of "representative of a removed image" to only the Henckel vertical page edge and other circumstances where an image can be considered "a depiction of at least a portion of the removed image." The term "representative" of an image, however, does not require the actual depiction of a portion of the image. For example, the image of a cat could be removed by dissolving from the screen into a small box labeled "Cat". The box labeled "Cat" or "Cat Image 1" would plainly represent the removed image of the Cat without in any way depicting the Cat or a portion of the Cat. Defendants' proposed construction, "a

b. Plaintiff's Construction is Too Narrow.

Even if the term "representative" could be defined, Plaintiff's construction is too limited – thereby unreasonably broadening the scope of the claim – and does not comport with the term's plain and ordinary meaning. There is no mention of the word "representative" in the specification, and the prosecution history, where the term was first added, does not contain any "expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope."[37] On the other hand, Defendants' construction, "a portrayal or symbol of the removed image," is consistent with the plain and ordinary meaning of "representative" in the context of the invention[38], and should therefore be adopted.

C. "Image," "Image's Content," "Class," "Ordered Set"

1. "image" (Term 7 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"image" (claims 1, 7, 15)	the object in the display that is manipulated in response to touch or location inputs	A displayed or drawn representation on a screen, capable of being manipulated as a unit by dragging and removal.

Defendants' proposed construction of the term "image" is drawn directly from the context of the claims and the specification. In contrast, FlatWorld's "manipulated as a unit"

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portrayal or symbol of the removed image," is a reasonable alternative in view of the common understanding of what the word "representative" means. (*See* Handy Decl., Exs. D & E (dictionary definitions of "representative" and "represent")).

[37] *Aventis Pharma S.A. v. Hospira, Inc.*, 675 F.3d 1324, 1330 (Fed. Cir. 2012) ("To act as its own lexicographer, a patentee must 'clearly set forth a definition of the disputed claim term' other than its plain and ordinary meaning.") (quoting *CCS Fitness, Inc. v. Brunswick Corp.*, 288 F.3d 1359, 1366 (Fed. Cir. 2002)); *Id*. ("[T]o disavow claim scope, '[t]he patentee may demonstrate intent to deviate from the ordinary and accustomed meaning of a claim term by including in the specification expressions of manifest exclusion or restriction, representing a clear disavowal of claim scope.'").

[38] *See*, "Represent," *Merriam-Webster.com*, 2013, available at http://www.merriam-webster.com/dictionary/represent (September 17, 2013) (defining "represent" as "to serve as a sign or symbol of" at definition 2) (reproduced at Handy Decl., Ex. E).

limitation is not supported by the specification and is a litigation-inspired attempt to rewrite the claims so that any arbitrary collection of pixels comprises an "image." FlatWorld's construction would allow it to argue, illogically, that if a part of an image is scrolled off-screen while the rest remains visible, the missing part of the picture has been "treated as a unit" with respect to being removed, and thus suddenly qualifies as a separate "'image."

The specification confirms that "images" are the graphical objects that are manipulated. Within the specification, the Summary of the Invention is particularly relevant to claim construction because it can "broadly describe the overall invention."[39] Here, the Summary of the Invention of the '318 patent explains that the invention "is based on manipulating an image on the touch-sensitive screen."[40] The remainder of the Summary of the Invention describes selecting, moving, removing and modifying an "image," further clarifying that the "image" referred to in the claims is the graphical object that is manipulated by being selected, moved, removed and modified.[41]

Additionally, the term "target" as used in the specification[42] is a "reserved name" in SuperCard meaning that this word has a set definition in the programming language which cannot be changed by the programmer. As stated by Dr. Milekic, "target" "refers to any object that has been clicked upon with a mouse, or in this case if it was touched."[43] In particular, each "target" is "an image that is made beforehand in another program, like photo shop."[44] As explained by Dr. Milekic, a target, or image, is an identifiable object in SuperCard:

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[39] *Microsoft Corp. v. Multi-Tech Sys.*, 357 F.3d 1340, 1348 (Fed. Cir. 2004).
[40] '318 patent at col. 2, ll. 19-20.
[41] *Id*. at col. 2, ll. 20-40. *See also* col. 6, ll. 28-45, 56-62; col. 7, ll. 39-66.
[42] *See, e.g.*, '318 patent at Figs. 12-15; col. 6, ll. 3-6, 12-15; col. 11, ll. 51-65.
[43] Milekic Samsung Dep. Tr. at 70:22-24.
[44] *Id*. at 176:7-9.

> Q: … How would you characterize what the object is that becomes the target, is, in language relevant to how a computer interprets what the object is?
>
> A: So an image is an object. It's a computer file, which is an object, and you can display an image on the screen. So I can import images that were made in some other program or if I got from someone else. Import them into the programming environment, and they'll show up on the screen. And if I import three different images, there will be three different objects.[45]

FlatWorld's own construction is inconsistent with the specification and should be rejected. FlatWorld's construction would require that an image must be "capable of being manipulated as a unit by dragging and removal." Tellingly, neither the specification nor the claims describe treating an image "as a unit." In fact, the phrase "as a unit" does not even appear anywhere in the specification.

Even if it were not inconsistent with the specification, FlatWorld's "as a unit" requirement is wrong because it does not appropriately delineate instances in which an image is merely a part of another image. Instead, FlatWorld's construction suggests that *any* random group of pixels that may be manipulated "as a unit" is an "image." Such a construction is inconsistent with the intrinsic evidence, which describes a target as the object in the display that is manipulated in response to location inputs. Therefore, Defendants' construction, not FlatWorld's, is supported by the intrinsic record and should be adopted.

2. "image's content" (Term 8 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"image's content" (claims 3, 9, 16)	Indefinite	*See,* "image" The attributes of the image.

What constitutes an "image's content" is not sufficiently defined by the specification or file history. In fact, the inventor testified that an "image's content" "can mean different things to different people" because it "depends on … the person's knowledge and interpretation and

[45] *Id.* at 176:23 to 177:11.

culture."[46] The inventor also testified that "[s]omething that a person can understand, take away like from perceiving an image" is what "image's content" means to him.[47]

As discussed below for the term "class," the claims were amended during prosecution to require that "the 'classes' of the claim are classes of images that have similar *contents.*"[48] However, akin to the arbitrariness of grouping images according to a particular "class," the file history and inventor testimony demonstrate that an "image's contents" are indefinite because the metes and bounds of the term depend upon a person's subjective interpretation of the image.[49]

3. "Class" (Term 6 in Joint Chart)

Term	Defendants' Construction	FlatWorld's Construction
"class" (claims 3, 9, 16)	Indefinite	A category of images sharing common attributes

The term "class" as used in the claims connotes commonality amongst a group of images. The '318 patent specification, however, fails to sufficiently delineate the metes and bounds of this term, and a person of ordinary skill in the art cannot always understand when a group of images are part of a "class." For example, the '318 specification only provides a few discrete examples of possible image "classes":

- ears ('318 patent at 8:8-12);
- deer (*id*. at 8:63 to 9:7);
- faces (*id*.); or
- the outdoors (*id*.).

[46] Milekic Samsung Dep. Tr. at 30:1-17.
[47] *Id*. at 32:9-13.
[48] Defendants' Chart, Ex. D-5 at 5.
[49] *See, e.g.*, *Crane Co. v. Sandenvendo Am., Inc.*, 2:07-CV-42-CE, 2009 WL 1586704, at *13 (E.D. Tex. June 5, 2009) (holding term "rapidly" indefinite because "[t]he term is entirely subjective and is judged purely from the consumer's standpoint").

Each of these could be within a virtually boundless number of "classes" such that someone reviewing the patent cannot know what is permissible or not. For example, is a "deer" a member of a class of living things, warm blooded living things, animals, animals which walk on four legs, animals in Bambi, etc. Ears and faces could be considered part of a common "class" of physiological characteristics; deer and the outdoors could be grouped in a "class" of nature images; and all of these images could be part of a common "class" if they are, say, painted by the same artist, stored in the same database, can all be purchased for under $10, and so forth.

The prosecution history reinforces the indefiniteness of this term. As argued by the applicant, "the 'classes' of the claim are classes of images that have similar *contents.*"[50] And, the amendment to the claims, which was purportedly meant to clarify that images belong to a class "according to an image's content," does nothing to define the metes and bounds of this term.[51]

The inventor's own testimony corroborates the subjective and indefinite nature of what a "class" of images means:

> Q. … [W]hen you use the word "class" in this patent, what did you understand that to mean?
>
> A. I understood it to mean – my understanding of this term stems from working with very young children and the way they form concepts. And the way young children form concepts is by being exposed repeatedly to members that belong to the same class. Like, the way the child learns what a dog is being exposed to a variety of dogs, and they pick up what dog this is, and they can recognize the dog as a member of the dog family. So, that's – that is the meaning of that term "class."
>
> Q. *How does one determine the metes and bounds, the boundaries of what's in a particular class?*

[50] Defendants' Chart, Ex. D-5 at 5 (emphasis in original).
[51] *See* Defendants' Chart, Ex. D-2 at 8 ("As claims 21, 31, and 36 are now amended, there can be no doubt that the 'classes' in Applicant's claims are content-oriented.").

> A. *It is very hard.*[52]
>
> * * *
>
> Q. … [I]n terms of limiting a claim, did you understand that as long as a group of things could in any way be determined to be in a class, that this term "class" covered them?
>
> A. The way I used it or what it means to me is that it's slightly more narrow. So, *if I select members of certain class according to a certain criteria that I use*, and expose a person or a young child to the members of this – that I selected – so it could be just horses, small horses, large horses, brown, black, with lots of hair, no hair, and so on -- so *the child would actually learn the concept of this class, the members of this class, even though any single member of this class could belong to a number of other classification systems*…. The reason why the term "class" has been used there is that in many of my applications, including VeggieFace, the objects that replace other objects belong to the same class. So eye is not going to be replaced by a nose or vice versa and so on. And this is particularly useful in museums, where if you create membership in the class, that where all the members belong, let's say, to abstract impressionist, even a child will actually learn how to identify unknown member that belongs to this class.[53]

As Milekic testified, a "class" could be anything a user believes should be a common criterion, and others will eventually "learn the concept of this class."[54]

Therefore, in view the specification's ambiguous "class" examples, the file history's definition of "class" to mean images that share "similar contents," and Milekic's own testimony corroborating the subjective nature of how "classes" are defined, this term is indefinite.[55]

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[52] Milekic Samsung Dep. Tr. at 127:23 -128:17 (emphasis added).
[53] *Id*. at 129:16 to 130:24 (emphasis added).
[54] FlatWorld's proposed construction, "a category of images sharing common attributes," does nothing to indicate when any two images can or cannot be part of the same "class." Whether "attributes" are "common" depends on someone's subjective perception of what the relevant "attributes" of a group of images are, and whether they are sufficiently "common."
[55] *See, e.g.*, *Interval Licensing, LLC v. AOL, Inc.*, C10-1385MJP, 2013 WL 792791, at *3-4 (W.D. Wash. Feb. 28, 2013) (holding terms "unobtrusive manner" and "does not distract" indefinite in claims directed to how information is displayed to a user "because the same image may or may not be considered unobtrusive depending on a variety of factors, such as color, size, and information displayed" and "whether something distracts a user from his primary interaction depends on the preferences of the particular user and the circumstances under which any single user interacts with the display"); *Shire LLC v. Teva Pharms. USA Inc.*, C.A. No. 10-329-RGA,

4. **"ordered set" (Term 10 in Joint Chart)**

Term	Defendants' Construction	FlatWorld's Construction
"ordered set" (claims 18, 19, 20)	a group [of images] each of which having a specified position within the group	A sequence of images.

The parties' dispute centers on whether an "ordered set" can encompass a random grouping of images. Claims 18, 19, and 20 require the image being thrown to be part of an "ordered set" such that if it is thrown in a "first direction" it is replaced by an image that "precedes the removed image in the ordered set," and if thrown in a "second direction," it is replaced by an image that "follows the removed image in the ordered set."[56] And the specification provides an example of an "ordered set" that includes "pictures that were ordered by increasing distance from photographic realism."[57]

Therefore, Defendants' construction is supported by the plain language of the claims and the intrinsic evidence, and properly requires each image to have a "specified position within the group." FlatWorld's construction, on the other hand, does little to clarify the meaning of the term for a jury because "sequence" could mean almost any arrangement of images, including one where images are grouped randomly.

III. CONCLUSION

For all the foregoing reasons, Defendants respectfully request that their proposed constructions for the disputed '318 patent claim terms be adopted.

2012 WL 975694, at *3 (D. Del. Mar. 22, 2012) (holding term "desired level and duration" indefinite because "[t]he scope of claim language cannot depend solely on the unrestrained, subjective opinion of a particular individual purportedly practicing the invention") (quoting *Datamize, LLC v. Plumtree Software, Inc.*, 417 F.3d 1342, 1350 (Fed. Cir. 2005)).

[56] '318 patent at col. 16, ll. 40-47 (claim 18), col. 16, ll. 48-56 (claim 19), and col. 16, ll. 57-65 (claim 20).

[57] *Id*. at col. 9, ll. 30-31.

Respectfully submitted,

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1123164

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

CERTIFICATE OF SERVICE

I, David E. Moore, hereby certify that on September 18, 2013, the attached document was electronically filed with the Clerk of the Court using CM/ECF which will send notification to the registered attorney(s) of record that the document has been filed and is available for viewing and downloading.

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